Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/449,660	WICHELMAN ET AL.
	Examiner	Art Unit	
	Daniel J. Ryman	2665	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _19 September 2005_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _21-40_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _21-40_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 9/19/2005 have been fully considered but they are not

persuasive. Applicant asserts, on pages 10-13 of the Response, that Zimmerman fails to disclose

a data analyzer that "process[es] the channel parameters and node parameters to obtain channel

test results, node test results, and group test results" because "Zimmerman relates to the

frequency response of amplifiers in the telecommunication equipment." Examiner, respectfully,

disagrees. Zimmerman discloses testing channels and performing a frequency scan for an

amplifier (col. 1, line 58-col. 2, line 10 and col. 5, lines 3-9), where, as broadly defined, the

amplifier is a "node." By displaying the results of an analysis of each channel as well as the full

spectrum of channels at an amplifier (i.e. node), Zimmerman discloses "obtain[ing] channel test

results [and] node test results." Zimmerman in view of Dev suggests combining the test results of

multiple nodes to obtain "group test results" (Dev: col. 2, lines 20-27; col. 2, lines 46-59; and

col. 12, line 60-col. 13, line 46). As such, Examiner maintains that the cited prior art renders

obvious the limitation "process the channel parameters and node parameters to obtain channel

test results, node test results, and group test results."

2.   Applicant further asserts that although Dev "appears to allow the displaying of network at

different levels, it should be noted that these levels are location and topological levels, not test

results selected from channel, node, and group test results as claimed." In response to applicant's

arguments against the references individually, one cannot show nonobviousness by attacking

references individually where the rejections are based on combinations of references. See *In re*

Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231

USPQ 375 (Fed. Cir. 1986). Here, Zimmerman discloses obtaining and displaying channel

information and node information (col. 1, line 58-col. 2, line 10 and col. 5, lines 3-9). Dev

discloses displaying information at a variety of different levels of specificity including network

and node (col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46). Therefore,

the combination of Zimmerman and Dev suggests displaying "channel, node, and group test

results."

3.   In view of the foregoing, Examiner maintains the rejection of the claims as obvious in

view of the cited prior art.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 21-29, 31-34, and 36-40 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Zimmerman (USPN 5,577,067) in view of Dev et al. (USPN 5,295,244).

6.   Regarding claims 21, 28, and 38, Zimmerman discloses a method and system for

monitoring a communication system (CATV system) having at least one group of nodes (branch

parts of a tree), each node having a plurality of channels (col. 1, lines 10-26), the method

comprising the steps of and the system comprising means for: acquiring data obtained during a

channel test (i.e. carrier-to-noise ratio test) and a spectrum scan test (i.e. display of full spectrum

of channels) (col. 1, line 58-col. 2, line 10 and col. 5, lines 1-9), the channel test configured to

obtain channel parameters related to the channels of each node of a first group of nodes (col. 1,

line 58-col. 2, line 10 and col. 5, lines 1-9), the spectrum scan test configured to obtain node

parameters of each node of the first group (col. 5, lines 1-9 and col. 5, lines 27-48); analyzing the

acquired data to obtain a plurality of channel test results (col. 1, line 58-col. 2, line 10; col. 5,

lines 1-9; and col. 6, lines 57-62) where the channel to noise ratio results are archived in a central

location, a plurality of node test results (col. 5, lines 1-9; col. 5, lines 27-48; and col. 6, lines 57-

62) where the spectrum test results for a node are archived in a central location; and controlling a

display screen on a display device to display a test result selected from the group consisting of

the channel test results and node test results (col. 5, lines 3-9 and col. 6, lines 57-62) where the

test results are retrieved from a central location based upon the address of a node.

Zimmerman does not expressly disclose analyzing the acquired data to obtain a plurality

of group test results and displaying the group test results. Dev teaches, in a network management

system using testing and monitoring, analyzing acquired data to obtain a plurality of group test

results (network level test results) and displaying the group test results (col. 2, lines 20-27; col. 2,

lines 46-59; and col. 12, line 60-col. 13, line 46) in order to "provide a network management

system which can systemize the knowledge of the networking expert such that common

problems can be detected, isolated and repaired, either automatically or with the involvement of

less skilled personnel" (col. 1, lines 64-68).

7.   Regarding claims 22 and 29, Zimmerman in view of Dev discloses that the channel test

results comprise at least one test result selected from the group consisting of: a channel carrier-

to-noise graph indicating a magnitude of a channel carrier-to-noise ratio of the channels

associated with one of the nodes with respect to time (Zimmerman: col. 1, line 58-col. 2, line 10

and col. 5, lines 1-9); a channel percent available graph indicating a percent availability of the

channels associated with one of the nodes with respect to time; a channel average noise power

graph indicating a magnitude of a channel noise power of the channels associated with one of the

nodes with respect to time; a channel power graph indicating a magnitude of a channel noise

power of one of the channels associated with one of the nodes with respect to time; and a channel

burst counter graph indicating a number of channel bursts occurring in the channels associated

with one of the nodes with respect to a burst duration length.

8.   Regarding claims 23 and 31, Zimmerman in view of Dev discloses that the node test

results comprise at least one test result selected from the group consisting of: a channel plan

graph indicating a desired frequency spectrum of a respective one of the nodes, the desired

frequency spectrum including at least one frequency band associated with at least one of the

channels that are associated with the respective node (Zimmerman: col. 5, lines 27-48); a total

node power graph indicating an amount of power associated with one of the nodes with respect

to time; and a node spectrum scan indicating the frequency spectrum of one of the nodes with

respect to time (Zimmerman: col. 5, lines 1-9).

9.   Regarding claims 24 and 32, Zimmerman in view of Dev discloses that the group test

results comprise at least one test result selected from the group consisting of: a node information

table listing a number of the nodes associated with said first group (Dev: col. 2, lines 20-27; col.

2, lines 46-59; and col. 12, line 60-col. 13, line 46); a group total node power graph indicating a

power range for a number of the nodes associated with said first group; and an average percent

availability graph indicating at least a low percent availability and a high percent availability for

a number of nodes associated with said first group, whereby percent availability is related to the

duration of bursts with respect to a total testing time.

10.   Regarding claim 25, Zimmerman in view of Dev discloses that the data analyzer

comprises control process software and graphical user interface (GUI) software (Dev: col. 2,

lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46).

11.   Regarding claim 26, Zimmerman in view of Dev discloses that the GUI software

comprises logic to enable a user to select a test result from said group consisting of the channel

test results, node test results, and group test results (Dev: col. 2, lines 20-27; col. 2, lines 46-59;

and col. 12, line 60-col. 13, line 46).

12.   Regarding claim 27, Zimmerman in view of Dev discloses that the channel parameters

include at least one parameter selected from the group consisting of a start frequency, a stop

frequency, a center frequency, a channel bandwidth, an average carrier power, and an average

noise power (Zimmerman: col. 5, lines 1-9) where a graph of amplitude vs. frequency will

inherently have a start frequency and a stop frequency.

13.   Regarding claim 33, Zimmerman in view of Dev discloses that the channel parameters

comprise at least one parameter selected from the group consisting of average noise power,

carrier-to-noise ratio, low-end frequency, high-end frequency, channel frequency, channel

bandwidth, high power threshold, low power threshold, and average carrier power (Zimmerman:

col. 1, line 58-col. 2, line 10 and col. 5, lines 1-9) where Zimmerman discloses carrier-to-noise

ratio.

14.   Regarding claim 34, Zimmerman in view of Dev discloses that the node parameters

comprise at least one parameter selected from the group consisting of: a spectrum scan

measurement indicating a power amplitude versus frequency; an average power measurement

indicating an integrated power amplitude over the bandwidth of a selected node; a channel power

measurement indicating an integrated operating power of a communication device over the bandwidth of the communication device; and a burst counter measurement indicating the number and duration of bursts above a specified power level (Zimmerman: col. 5, lines 1-9) where Zimmerman discloses a spectrum scan measurement indicating a amplitude versus frequency.

15.   Regarding claim 36, Zimmerman in view of Dev discloses defining a channel plan corresponding to a start frequency, a stop frequency, a center frequency, and a list of channels (Zimmerman: col. 5, lines 1-9 and col. 5, lines 27-48).

16.   Regarding claim 37, Zimmerman in view of Dev discloses that analyzing the acquired data further comprises: comparing expected operational levels with actual measured levels (Zimmerman: col. 5, lines 1-9 and col. 5, lines 27-48).

17.   Regarding claim 39, Zimmerman in view of Dev discloses logic configured to enable a user to select the test result from the group consisting of the channel test results, node test results, and group test results (Dev: col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46).

18.   Regarding claim 40, Zimmerman in view of Dev discloses that the group test results comprise at least one test result selected from the group consisting of: a node information table listing a number of the nodes associated with said first group (Dev: col. 2, lines 20-27; col. 2, lines 46-59; and col. 12, line 60-col. 13, line 46); a group total node power graph indicating a power range for a number of the nodes associated with said first group; and an average percent availability graph indicating at least a low percent availability and a high percent availability for a number of nodes associated with said first group, whereby percent availability is related to a sum of burst durations with respect to a total testing time; the node test results comprise at least

one test result selected from the group consisting of: a channel plan graph indicating a desired

frequency spectrum of a respective one of the nodes, the desired frequency spectrum including at

least one frequency band associated with at least one of the channels that are associated with the

respective node (Zimmerman: col. 5, lines 27-48); a total node power graph indicating an amount

of power associated with one of the nodes with respect to time; and a node spectrum scan

indicating the frequency spectrum of one of the nodes with respect to time (Zimmerman: col. 5,

lines 1-9); and the channel test results comprise at least one test result selected from the group

consisting of: channel carrier-to-noise graph indicating a magnitude of a channel carrier-to-noise

ratio of the channels associated with one of the nodes with respect to time (Zimmerman: col. 1,

line 58-col. 2, line 10 and col. 5, lines 1-9); a channel percent available graph indicating a

percent availability of the channels associated with one of the nodes with respect to time; a

channel average noise power graph indicating a magnitude of a channel noise power of the

channels associated with one of the nodes with respect to time; a channel power graph indicating

a magnitude of a channel noise power of one of the channels associated with one of the nodes

with respect to time; and a channel burst counter graph indicating a number of channel bursts

occurring in the channels associated with one of the nodes with respect to a burst duration length.

19.   Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmerman

(USPN 5,577,067) in view of Dev et al. (USPN 5,295,244) as applied to claim 29 above, and

further in view of Braun et al. (USPN 4,685,065).

20.   Regarding claim 30, Zimmerman in view of Dev does not expressly disclose that percent

availability is related to the duration of bursts exceeding a specified power level during a total

testing time. Braun teaches, in a cable testing system, determining which channels are active and

which are not by measuring a power level during a total testing time (Fig. 2 and col. 3, line 54-col. 4, line 29) where it is implicit that active channels will have a higher power than inactive channels due to the presence of signals being transmitted on the active channel. Displaying this information in as a percent availability graph would have been obvious to one of ordinary skill in the art at the time of the invention as a design choice. It would have been obvious to one of ordinary skill in the art at the time of the invention to relate the percent availability to the duration of bursts exceeding a specified power level during a total testing time since active channels will have a higher power than inactive channels.

21.   Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmerman (USPN 5,577,067) in view of Dev et al. (USPN 5,295,244) as applied to claim 28 above, and further in view of Applicant's admitted prior art.

22.   Regarding claim 35, Zimmerman in view of Dev does not expressly disclose that acquiring data further comprises: setting high and low alarm limits; however, Applicant admits as prior art that it is well known in the art to set high and low alarm limits (page 2, lines 11-12 and page 2, lines 23-31) where it is implicit that this is done to ensure that the system is operating properly. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have acquiring data further comprise: setting high and low alarm limits in order to ensure that the system is operating properly.

Conclusion

23.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The

examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel J. Ryman
Examiner
Art Unit 2665

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600